HW

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,644	10/16/2001	Jason Lango	5693P113	7020

48102 7590 01/10/2006

NETWORK APPLIANCE/BLAKELY
12400 WILSHIRE BLVD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER	
AILES, BENJAMIN A	
ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/981,644	LANGO ET AL.	
	Examiner	Art Unit	
	Benjamin A. Ailes	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/27/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-36 have been canceled.

2. Claims 37-55 remain pending.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 October 2005 has been entered.

Response to Arguments

4. Applicant's arguments with respect to claims 37-55 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 39, 46 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 39 recites the limitation "the requested pace" in lines 2-3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 37, 38, 39, 42 46-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff et al. (U.S. 6,366,970), hereinafter referred to as Wolff, in view of Baumeister et al. (U.S. 2001/0034786), hereinafter referred to as Baumeister, and Jones et al. (U.S. 6,744,763), hereinafter referred to as Jones, and further in view of Srikantan et al. (US 2002/0056126 A1), hereinafter referred to as Srikantan.

11. Regarding claim 37, Wolff discloses a computer system comprising:

a processor (col. 2, ll. 11-20, use of a CPU);

a storage facility coupled to the processor (col. 2, ll. 11-20, memory);

program code, for execution by the processor, to implement:

a first plurality of interfaces to initiate reading of packet meta-data and packets of payload data from the storage facility (col. 3, ll. 55-60, col. 4, ll. 31-35);

a second plurality of interfaces to output streaming media packets to a requesting client system (col. 4, lines 5-12), wherein the second plurality of interfaces collectively support a plurality of streaming media protocols, and wherein the streaming media packets comprise the packet meta-data and the packets of payload data and are determined in response to a streaming media protocol requested by the client system.

Wolff discloses the reading of packet meta-data and packets of payload data and the distribution of the streaming media to requesting client and the streaming media packets comprising the packet meta-data and the packets of payload data (Wolff, col. 4, lines 31-35), however does not explicitly discloses the system supporting a plurality of streaming media protocols and streaming the packet meta-data and the packets payload using a streaming media protocol as requested by the client system. However, in related art, Srikantan discloses a system for streaming media across a network to clients using a plurality of different protocols (see page 2, para. [0027], the use of a media streaming server capable of streaming multiple forms of media (i.e. Quicktime media) and formatting the streams according to a set of protocols, including RTSP (Real-Time Streaming Protocol), RTP (Real-Time Protocol), RTCP (Real-Time Transport Protocol), RTCP (Real-Time Transport Control Protocol), and/or SDP (Session Description Protocol). Srikantan also discloses that many other types of media protocols may be used when streaming media to a client. It would have been

obvious to one of ordinary skill in the art at the time of the applicant's invention to implement the system as disclosed by Wolff to be able to stream media using a plurality of protocols, the system as disclosed by Srikantan. One of ordinary skill in the art would have been motivated to combine the teachings of Srikantan with the teachings of Wolff in order to provide diverse clients with a wide range of different protocols so that different clients could have media streamed to them without problems of incompatibility.

12. Regarding claim 38, Wolff discloses the first plurality of interfaces being independent of a streaming media protocol, the packet meta-data and packets of payload data are not reliant upon a certain protocol, and Srikantan discloses the dependence upon a streaming media protocol in order for the second plurality of interfaces to distribute media to clients (p. 2, para. [0027]). The rationale used above in the rejection of claim 37 for the combination of Wolff and Srikantan applies equally as well to claim 38.

13. Regarding claim 39, Wolff discloses the reading of packet meta-data and the packets of payload data, as mentioned above in the rejection of claim 37, however does not explicitly state the exact pace as to how fast information is read. However, it is deemed well known in the art the computer processors can run at many different speeds and it is very unlikely that two processors will run at the same exact speed due to many factors, including workload and overall total processing power of the computer processor. Therefore, the Examiner takes official notice that the reading of packet meta-data and packets of payload data will be read at a different speed of the streaming media being transmitted to a client machine. It should also be noted that the ability to

set bit-rate in a streaming media client is common in the art. The examiner takes official notice that setting bit-rate in a streaming media client is well known in the art. Thus, given such knowledge, a person having ordinary skill in the art would have readily recognized the desirability and advantages of streaming the media packets to a client at a requested pace in order to prevent buffer over-run or under-run and to prevent loss of packets/data, because each client may differ in the amount of bandwidth that it can utilize.

14. Regarding claim 40, the combination of Wolff and Baumeister and Srikantan teach independent claim 37 substantially as mentioned above and specifically disclose the first plurality of interfaces conducting steps separately from the steps required by the set of second interfaces, therefore it is deemed that it would have been obvious to one of ordinary skill in the art for the separate steps to have been completed in separate software layers. One of ordinary skill in the art would have recognized the separate steps being performed in separate software layers because they are independent steps that work together in the computer system.

15. Regarding claim 41, Wolff and Baumeister show substantial features of the claimed invention but fail to disclose a third plurality of interfaces configured to receive the packet meta-data, configured to adjust the packet meta-data to form adjusted packet meta-data, and to output the adjusted packet meta-data; wherein the streaming media packets are also determined in response to the adjusted packet meta-data. Baumeister discloses a method and system for streaming media data in a heterogeneous network environment where the system is configured to receive the

meta-data and to output the meta-data (col. 3, [0048], lines 5-8). Baumeister also discloses that the streaming media packets are determined in response to the packet meta-data (col. 3, [0048], lines 11-15 – the meta-data is generated then sent to the media player via the stream server portal. Upon receiving the meta-data, the media player invokes the stream server using information of the streaming meta-data. Thus, the media packets are determined by the meta-data). However, Baumeister teaches of a generated meta-data, but does not specifically teach an adjusted meta-data. Jones discloses a method and apparatus for media data transmission and teaches a QuickTime file format, where the meta-data provides declarative, structural and temporal information about the actual media data. Jones goes on to further disclose that the QuickTime file format is well suited for situations where meta-data is modified and temporal mapping information is adjusted (col. 1, lines 65-67; col. 2, lines 1-5). If a meta-data can be created, being able to modify, update, or adjust it is a logical and obvious extension. Furthermore, having an ability to adjust meta-data increases interoperability between streaming media protocols. Hence, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teaching of Baumeister with the teaching of Jones to include the adjusting of meta-data (i.e. temporal mapping of meta-data which indexes into a specific time range of the media).

16. Regarding claim 42, Wolff shows substantial features of the claimed invention as explained in the rejection of claim 37, but fails to disclose that the streaming media protocol is selected from the group: Microsoft Media Streaming, Real Time Streaming

protocol, RealNetworks RealSystem. However, Baumeister teaches a method and system for streaming media where the streaming may be chosen from MicrosoftNetshowServer (Microsoft Media Streaming) and RealNetworksServer (RealNetworks RealSystem), and Real Time Streaming protocol (see page 2, 2nd column, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teaching of Wolff with the teaching of Baumeister to support these streaming media protocols, because they are commonly used protocols in the computer networking arts and because supporting multiple protocols alleviates the problems of compatibility and affords the users greater flexibility in choosing the streaming media format best suited for their needs.

17. Regarding claim 43, Wolff discloses the invention substantially as explained in the rejection of claim 1, but does not explicitly disclose that the second plurality of interfaces is configured to output a streaming media packet at a requested time. However, the examiner takes official notice that fast forwarding or rewinding the streaming media to a specific point in time is well known in the art. The ability to rewind or fast forward is a de facto feature in virtually all forms of media playback. Random access of data saves time by allowing the user to choose a specific point in time of playback in a given media without having to sequentially play an entire media at the normal rate. The advantages of random access are well known in the art. For example, sequential search for an item in an array is much slower than random access into an array with a use of an index. Fast forwarding or rewinding in media playback is a natural extension of sequential file access and random file access in normal files on

computer readable medium. In fact, it is true that a media file is also a normal file, readable by a computer, and thus randomly accessible. Given such knowledge, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Wolff by employing the well-known feature of playing the media stream from a certain point in time. Thus, it would have been obvious to one of ordinary skill in the art to modify the teaching of Wolff to include this feature for the explicit reasons discussed herein above.

18. Regarding claim 44, in accordance with claim 1, Wolff discloses a computer system wherein the second plurality of interfaces outputs streaming media packets to the client system after packet meta-data and packets of payload data are read from the memory (col. 4, lines 5-12). It is understood that when data is read from the disk, it is subsequently read into memory.

19. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff and Baumeister, and further in view of Loguinov (U.S. 2002/0181506).

20. Regarding claim 45, the combined teaching of Wolff and Baumeister teach substantial features of the claimed invention, including a system for streaming media packets, where a specific streaming media protocol is selected, but it fails to explicitly disclose that the sizes of streaming media packets output to the client system depend upon the streaming media protocol. However, Loguinov teaches a method and system for supporting real-time packetization of multimedia information where depending on the specific protocol in use, a packet may be fixed or variable length (page 2, [0020], lines 7-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time

of the applicant's invention to further modify the teaching of Wolff and Baumeister to employ use of different packet sizes of streaming media packets depending upon the streaming media protocol because certain streaming media protocol may be better suited for certain packet sizes (certain protocol may require fixed length while others require variable length of differing length, for example).

21. Claim group consisting of claims 46-51 and claim group consisting of claims 52-54 essentially claim similar subject matter and are rejected under the same rationale as the claim group consisting of claims 37-45.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pinckney, III et al. (US 2002/0169926 A1) disclose systems and methods for efficient cache management in streaming applications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A. Ailes whose telephone number is (571)272-3899. The examiner can normally be reached on M-F 6:30-4, IFP Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

baa

Beatriz Prieto
BEATRIZ PRIETO
PRIMARY EXAMINER